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- 3 - Express Mail Label No.: EV308929660US
Date of Deposit: January 26, 2005

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-18 (Canceled)

19. (New) An optical device comprising:

a plurality of plates providing a plurality of flat surfaces positioned to provide a function selected from the group consisting of total external reflection and collimation of high energy radiation from a high energy radiation source, the plurality of plates located at a position selected from the group consisting of after the radiation source and before a detector positioned to receive the high energy radiation,

wherein the plurality of flat surfaces are non-parallel.

20. (New) The optical device of claim 19, wherein the source defines an arcuate surface and each of the plurality of flat surfaces is substantially normal to the arcuate surface.

21. (New) The optical device of claim 19, wherein the detector defines an arcuate surface and each of the plurality of flat surfaces is substantially normal to the arcuate surface.

22. (New) The optical device of claim 19, wherein the high energy radiation comprises X-ray radiation.

23. (New) The optical device of claim 19, wherein the high energy radiation comprises extreme ultraviolet (EUV) radiation.

24. (New) The optical device of claim 19, further comprising fixing means for fixing the position of the plurality of plates relative to each other.

- 4 - Express Mail Label No.: EV308929660US
Date of Deposit: January 26, 2005

25. (New) The optical device of claim 24, wherein the fixing means is transmissive to the high energy radiation

26. (New) The optical device of claim 19, wherein the plurality of plates includes a coating material.

27. (New) The optical device of claim 19, wherein the plurality of plates are formed from a material having a density less than 6 g/cm³.

28. (New) The optical device of claim 24, wherein the fixing means comprises an adhesive.

29. (New) The optical device of claim 19, further comprising a positioning device for the positioning the plurality of plates relative to each other.

30. (New) The optical device of claim 19, wherein the optical device is a multifoil optic.

31. (New) The optical device of claim 19, wherein the optical device is a Soller slit.

32. (New) A method for performing high energy radiation lithography, comprising the steps of:

receiving high energy radiation from a high energy radiation source;

focusing the high energy radiation from the high energy radiation source using an optical device;

receiving the focused high energy radiation from the optical device onto a lithographic specimen via a lithographic mask.

33. (New) The method of claim 32, wherein the high energy radiation comprise X-ray radiation.

34. (New) The method of claim 32, wherein the high energy radiation comprises extreme ultraviolet (EUV) radiation.

- 5 - Express Mail Label No.: EV308929660US
Date of Deposit: January 26, 2005

35. (New) A high energy lithographic system, comprising:
a high energy source;
an optical device for focusing high energy radiation from the high energy source;
a mask, which receives focused high energy radiation from the optical device; and
a specimen, which is imprinted with the pattern of the mask by the high energy
radiation passing therethrough.

36. (New) The high energy lithographic system of claim 35, wherein the high
energy radiation comprises X-ray radiation.

37. (New) The high energy lithographic system of claim 35, wherein the high
energy radiation comprises extreme ultraviolet (EUV) radiation.